

REMARKS

Status Of Application

Claims 1-4 and 6-19 are pending in the application; the status of the claims is as follows:

Claims 1, 6 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,952,990 to Inoue et al (“Inoue”), in view of U.S. Patent No. 6,075,508 to Ono et al (“Ono”) and further in view of U.S. Patent No. 5,796,447 to Okumura et al (“Okumura”).

Claims 2, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of U.S. Patent No. 6,268,840 B1 to Huang (“Huang”).

Claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of U.S. Patent No. 4,728,936 to Guscott et al (“Guscott”).

Claims 7-9, 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Japanese Patent Publication No. 08-035759 (A) to Chikako (“Chikako”).

Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono, Okumura and Chikako as applied to claims 1 or 7 above, and further in view of U.S. Patent No. 5,726,676 to Callahan, Jr. et al (“Callahan”) and U.S. Patent No. 6,323,851 B1 to Nakanishi (“Nakanishi”).

Claims 14 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of U.S. Patent No. 6,342,901 B1 to Adler et al (“Adler”).

Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Inoue, in view of U.S. Patent No. 6,233,027 B1 to Unno et al (“Unno”) and further in view of Ono.

Claim Amendments

Claim 18 was amended to more particularly describe and distinctly claim the invention. No new matter was added.

35 U.S.C. § 103(a) Rejections

The rejection of claims 1, 6 and 15 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, in view of Ono and further in view of Okumura, is respectfully traversed based on the following.

Claims 1, 6, and 15

Claim 1 recites at least the following distinguishing characteristic of the present invention, namely, that *the control section causes the display section to be **reset** before the driving section rewrites currently displayed information upon the timer counting to a predetermined value.*

In contrast, Ono and Inoue, either singly or in combination, **fail** to teach or suggest that, when a timer counts to a predetermined value, the display section is **reset** prior to rewriting. Particularly, as discussed in greater detail below, both Ono and Inoue, disclose **refreshing** and not **resetting** the display section, which one skilled in the art would understand to be completely different.

Inoue **does not** disclose a timer which begins counting when the information displayed on the display section is updated and the control section causes the driving section to rewrite currently displayed information on the display section upon the timer counting to a predetermined value, and furthermore, **does not** disclose the control section causes the display section to be **reset** before the driving section rewrites currently

displayed information upon the time counting to a predetermined value. Thus, claim 1 is not obvious with respect to Inoue.

Ono teaches that a timer 18 counts a time during which a rewrite operation in the VRAM 3 is not performed. When a predetermined count time has elapsed, the CPU 9 sends a signal representing the continuous number of display lines to the line address generator 7 to perform **refresh display**. See Col. 7, lines 53-58. However, Ono **does not** teach that the control section causes the display section to be **reset** before the driving section rewrites currently displayed information upon the timer counting to a predetermined value. That is, one distinguishing characteristic of claim 1 of the present invention is that the display section is **reset**, which is, as one skilled in the art would understand, completely different than the display section being **refreshed** as is disclosed in Ono.

Consequently, a combination of the two references would not provide the liquid crystal display device of claim 1 of the present application, nor could it be modified to do so. Thus, claim 1 is not obvious with respect to Ono and Inoue, either singly or in combination.

In an attempt to overcome the inadequacies of Ono and Inoue, the Examiner additionally cites a combination with Okumura. Okumura is cited for the teaching to the use of cholesteric liquid crystals for liquid crystal displays. Okumura teaches several methods for **resetting** a liquid crystal, but **fails** to disclose or suggest *a timer which begins counting when information displayed on the display section is updated*; and therefore clearly **fails** to disclose or suggest wherein the control section causes the driving section to rewrite currently displayed information on the display section *upon the timer counting to a predetermined value* and the control section causes the display section to be reset before the driving section rewrites currently displayed information *upon the timer counting to a predetermined value* as is recited by claim 1. Thus, although Okumura teaches **resetting** of the LCD prior to rewriting processing, Okumura **fails** to disclose or suggest the circumstances of the resetting as are clearly recited in claim 1. That is, Okumura fails to

disclose or suggest that the display section is **reset** prior to rewriting when a timer counts to a predetermined value. Thus, claim 1 is not rendered obvious by Okumura.

Further, there is no motivation to combine the three references as it would not have been obvious for one skilled in the art to combine teachings to **refreshing** with those of **resetting**, as they are used for completely different purposes. Applicants strongly assert that the Examiner has failed to indicate any such support for how the teachings of **resetting** is obviously applicable to **refreshing**. Further, Applicants strongly assert that based on the above arguments, no such support can be found. Moreover, even if motivation or suggestion to combine the teachings of Ono and Inoue with that of Okumura could be found, the device achieved would not be that of claim 1 of the present application as none of the cited references disclose or suggest that the display section is **reset** prior to rewriting when a timer counts to a predetermined value. Therefore, none of the above cited references, either alone or in any combination, renders claim 1 obvious.

Claim 6 depends from non-obvious independent claim 1, and thus, is also not obvious over the cited references, either singly or in any combination.

Claim 15 recites at least one distinguishing characteristic of the present invention, namely that the step of ***resetting the liquid crystal display*** is performed *upon the timer reaching a predetermined value*.

Applicants assert that for at least the reasons presented above with respect to claim 1, claim 15 is not rendered obvious over any of Ono, Inoue, and Okumura, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 1, 6 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, in view of Ono and further in view of Okumura, be reconsidered and withdrawn.

Claims 2, 16, and 17

The rejection of claims 2, 16 and 17 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Huang, is respectfully traversed based on the following.

Claims 2, 16, and 17 each depend from independent claim 1. As discussed above, claim 1 is not obvious with respect to Inoue, Ono and Okumura, either singly or in any combination. Further, none of these cited references disclose the use of chiral nematic liquid crystal in the liquid crystal display device as is recited in claim 2.

The Examiner has relied on Huang in combination with the Inoue, Ono, and Okumura in an attempt to overcome the above cited inadequacies of the cited references. However, whether or not Huang discloses or suggests using a chiral nematic liquid crystal which exhibits a cholesteric phase or such use is inherent based on the reference, Huang **does not** overcome the inadequacies of the above cited references with respect to claim 1. That is, Huang **does not** disclose or suggest that the control section causes the display section to be *reset* before the driving section rewrites currently displayed information upon the time counting to a predetermined value. Thus, for this reason alone, claim 1 is not rendered obvious

Additionally, Huang **fails** to disclose or suggest a timer which begins counting when the information displayed on the display section is updated and the control section causes the driving section to rewrite currently displayed information on the display section upon the timer counting to a predetermined value. Thus, for this reason as well, claim 1 is not rendered obvious by Huang, either singly or in any combination with the above cited references.

Thus, claims 2, 16, and 17, which depend from non-obvious independent claim 1 are also not obvious over Inoue, Ono, Okumura, Huang, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 2, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Huang, be reconsidered and withdrawn.

Claims 3 and 4

The rejection of claims 3 and 4 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Guscott, is respectfully traversed based on the following.

Claims 3 and 4 depend from independent claim 1. As discussed above, claim 1 is not obvious with respect to Inoue, Ono and Okumura, either singly or in any combination. Further, none of these cited references disclose: a) **as pertaining to claim 3**, a detecting section which detects a contact action with the screen and having a control section that controls the driving section to write currently displayed information on the display again when a contact is detected, b) **as pertaining to claim 4**, a touch sensor.

The Examiner has relied on Guscott in combination with Inoue, Ono, and Okumura in an attempt to overcome the above cited inadequacies of the previously cited references. However, whether or not Guscott discloses or suggests the above cited limitations of claims 3 or 4, or such limitations are inherent based on the reference, Guscott **does not** overcome the inadequacies of the above cited references with respect to claim 1. That is, Guscott **does not** disclose the control section causes the display section to be *reset* before the driving section rewrites currently displayed information upon the time counting to a predetermined value. Additionally, Guscott **does not** disclose or suggest does a timer which begins counting when the information displayed on the display section is updated and the control section causes the driving section to rewrite currently displayed information on the display section upon the timer counting to a predetermined value. Thus, claim 1 is not obvious over Guscott, either singly or in any combination with the above cited references.

Thus, claims 3 and 4, which depend from non-obvious independent claim 1, are also not obvious over the above cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Guscott, be reconsidered and withdrawn.

Claims 7-9, 12 and 13

The rejection of claims 7-9, 12 and 13 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Chikako, is respectfully traversed based on the following.

Claims 7-9, 12 and 13 depend from independent claim 1. As discussed above, claim 1 is not obvious over Inoue, Ono, or Okumura, either singly or in any combination.

The Examiner has relied on Chikako in combination with Inoue, Ono, and Okumura in an attempt to overcome the above cited inadequacies of these references. However, whether or not Chikako discloses or suggests any of the above cited limitations of claims 7-9, 12 and 13, or such limitations are inherent based on the reference, Chikako **does not** overcome the inadequacies of the above cited references with respect to claim 1. That is, Chikako **does not** disclose the control section causes the display section to be *reset* before the driving section rewrites currently displayed information upon the time counting to a predetermined value. Additionally, Chikako **does not** disclose or suggest a timer which begins counting when the information displayed on the display section is updated and the control section causes the driving section to rewrite currently displayed information on the display section upon the timer counting to a predetermined value. Thus, claim 1 is not obvious over Chikako, either singly or in any combination with the above cited references.

Thus, claims 7-9, 12 and 13, which depend from non-obvious independent claim 1, are also not obvious over the above cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 7-9, 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Chikako, be reconsidered and withdrawn.

Claims 10 and 11

The rejection of claims 10 and 11 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, Ono, Okumura and Chikako as applied to claims 1 or 7 above, and further in view of Callahan and Nakanishi, is respectfully traversed based on the following.

Claims 10 and 11 depend from independent claim 1. Applicants reiterate that claim 1 is not obvious over Inoue, Ono, Okumura and Chikako, either singly or in any combination. Neither of the cited references (Callahan or Nakanishi) overcomes the significant inadequacies of the other cited references by disclosing or suggesting a liquid crystal display device having *a timer which begins counting when information displayed on the display section is updated*; wherein the control section causes the driving section to rewrite currently displayed information on the display section *upon the timer counting to a predetermined value* and the control section causes the display section to be **reset** before the driving section rewrites currently displayed information *upon the timer counting to a predetermined value* as is recited by claim 1.

In order to support his allegations of obviousness of claim 1, the Examiner has merely tacked on a couple of additional references (Callahan and Nakanishi), neither of which overcomes the inadequacies of the cited references, either singly or in combination. Applicants once again assert that the Examiner continues to impermissibly piecemeal and compound references by using the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Further, Applicants strongly assert that if the Examiner must resort to alleging a combination of five (5) separate references, some which are not analogous art, in order to piece together the claimed device, then it would **not** likely be obvious to one skilled in the art to combine the references, and that the motivation sufficient to support an obviousness rejection would not likely be found within any of the references.

Thus, whether or not the characterization of the additional references proffered by the Examiner is correct with respect to the precise limitations of claim 10 and 11 only, claim 1 is not rendered obvious by the cited references, either singly or in any combination. Thus, for at least the above reason, claims 10 and 11, which depend from non-obvious independent claim 1, are not rendered obvious by the cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono, Okumura and Chikako as applied to claims 1 or 7 above, and further in view of Callahan and Nakanishi, be reconsidered and withdrawn.

Claims 14 and 19

The rejection of claims 14 and 19 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Adler, is respectfully traversed based on the following.

Claim 14 depends from independent claim 1. As discussed above, claim 1 is not rendered obvious by Inoue, Ono and Okumura, either singly or in any combination.

The Examiner has additionally relied on Adler in combination with Inoue, Ono, and Okumura in an attempt to overcome the above cited inadequacies of these references. Adler is cited as disclosing a portable device that is networked to remote or main processor that is able to obtain different type of information, such as email, a calendar, or a picture. However, whether or not Adler discloses or suggests the above cited limitations of claim 14, or such limitations are inherent based on the reference, Adler **does not** overcome the previously discussed inadequacies of the above cited references with respect to claim 1. That is, Adler does not disclose or suggest that *the control section causes the display section to be reset before the driving section rewrites currently displayed information upon the timer counting to a predetermined value*. Thus, claim 1 is not obvious over Adler, either singly or in any combination with the above cited references.

Therefore, claim 14, which depends from non-obvious independent claim 1, is also not rendered obvious by the above cited references, either singly or in any combination.

Claim 19 recites at least the following distinguishing characteristic of the present invention, namely, a liquid crystal display device including *a manual operating member operable by a user; wherein a control section causes the driving section to rewrite currently displayed information on the display section upon operation of the manual operating member.*

Applicants assert that none of Inoue, Ono, Okumura, or Adler discloses a liquid crystal display device including a manual operating member operable by a user; *wherein the control section causes the driving section to rewrite currently displayed information on the display section upon operation of the manual operating member.* Consequently, claim 19 is not rendered obvious by any of the above cited referenced, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 14 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, Ono and Okumura as applied to claim 1 above, and further in view of Adler, be reconsidered and withdrawn.

Claim 18

The rejection of claim 18 under 35 U.S.C. § 103(a), as being unpatentable over Inoue, in view of Unno and further in view of Ono, is respectfully traversed based on the following.

Claim 18, as amended, recites at least the following distinguishing characteristics of the present invention, namely, *a display section comprising a plurality of stacked layers, each of said layers comprising a first substrate which is a flexible substrate through which a viewer views currently displayed information, a second substrate, and a liquid crystal material having a memory effect disposed between the first substrate and the second substrate, the plurality of layers being stacked such that the first substrate in a*

layer is positioned closer to a viewer side than the second substrate of the layer. Further, claim 18 recites *a timer which begins counting when information displayed on the display device section is updated; wherein the control section causes the driving section to rewrite currently displayed information on the display section upon the timer counting to a predetermined value.* Neither Inoue, Unno or Ono, either singly or in combination, discloses or suggests a plurality of stacked layers, each comprising a pair of substrates which sandwich the liquid crystal material, and that the substrate through which a viewer views currently displayed information is flexible. Further, none of the cited references, either singly or in combination, discloses or suggests that for each of the stacked layers the flexible first substrate of a layer is positioned closer to a viewer side than the second substrate of the layer. Consequently, claim 18 is not rendered obvious by any of the above cited referenced, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Inoue, in view of Unno and further in view of Ono, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.


This Amendment does not increase the number of independent claims, does not increase the total number of claims, and does not present any multiple dependency claims. Accordingly, no fee based on the number or type of claims is currently due. However, if a fee, other than the issue fee, is due, please charge this fee to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be

construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

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July 16, 2003

DAI 262468v6